

## **Article reference: 16-127**

# **Practices and meanings of non-professional stock-trading in Taiwan: a case of relational work**

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# Practices and meanings of non-professional stock trading in Taiwan: a case of relational work

## Abstract

Non-professional investors, especially outside the Anglo Saxon context, represent an important and under-researched topic for sociological studies of finance. The paper presents a qualitative study of non-professional investors in Taiwan, where levels of participation in the stock market are very high. It shows that investors are embedded in complex networks of social relations, cultural norms and economic projects. We use Zelizer's notions of 'relational work' and 'earmarking' to explore how economic relations construct and reinforce social relations: investing is productive of, as well as derived from, social structures. Stock market participation secures access to social groupings and reproduces hierarchical relations in families and social networks. Our study seeks to highlight the relational content of financial markets, and calls for further investigation of the relational work performed by the material-calculative architectures of high finance.

## Keywords:

Economic sociology, embeddedness, Callon, financial markets, non-professional investors, Zelizer, earmarking

## Introduction

This paper presents an account of non-professional stock market participation in Taiwan. The study of non-professional financial actors is vital to our understanding of the spread of financial market practice, and the related issues of economic participation and ‘shareholder democracy’ (Aitken, 2003). Our focus, however, is slightly different. We offer a study of Taiwanese non-professional investors as a counterfactual to the professional, Western – sometimes material – financial actors that predominate in the sociological studies of finance. Our analysis suggests that attention be directed not only to the role of social and cultural relations in formatting economic action (Chan, 2009; DiMaggio, 1994; in the context of the financial crisis Engelen et al., 2012; Granovetter, 1985), but also to the social and cultural relations constituted by economic action itself. Through an exploration of non-professional investors in a distinct cultural context we pose an empirical challenge to idealized notions of social relation immanent in the ‘purified’ economic relations of high capitalism (Slater, 2002; Slater and Tonkiss, 2001), and continue a much needed project of politicising the STS-inspired ‘new, new economic’ sociology.

Investing is hugely popular in the Taiwan and there are eighty-seven brokerage accounts per hundred of population, although it is worth noting that only a small minority can expect to earn reliable profits from trading (Barber, Lee, Liu, & Odean, 2007; Barber, Yi-Tsung Lee, Liu, & Odean, 2014). Investing is a phenomenon that has developed alongside the liberalisation of the Taiwan stock exchange from the 1980s onwards. It exists in an idiosyncratic financial culture that marries the industrialised free market with traditional financial structures and social relations (Besley and Levenson, 1996; Chan, 2009). The investors studied are embedded in complex networks of social and economic relations, and have multiple motivations – social and economic, pragmatic and aspirational – for engaging in the stock market. Moreover, investment activity and the transactions that surround it have a relational character, constructing and performing social relations, demarcating status and reproducing social capital and status. Our study therefore contributes to the growing recognition that mundane social relations must be written into the sociology of economic activity (Moor and Lury, 2011) and suggests that a focus on locally produced, specific economic arrangements (Miller, 2002) might challenge empirical researchers to explore how the more formal modes of calculation documented in much European economic sociology

(Çalışkan and Callon, 2010; Callon and Muniesa, 2005) naturalize and perform a specific kind of arms-length economic relation.

The claim that social relations determine the shape of economic action is by now a taken-for-granted of economic sociology. Since the 1970s the ‘new’ economic sociology (NES) has offered a variety of structural explanations for economic activity based on networks and social relationships, all loosely governed by the term ‘embeddedness’ (Granovetter, 1973; Swedberg and Granovetter, 1992; Uzzi, 1996). The embeddedness approach – the understanding that economic activity is driven by the flow of information through social ties, and can be mathematically modelled as such – has achieved phenomenal success:

Granovetter’s original 1973 paper has been cited some 35,000 times and his theory ‘enjoys a privileged... position as the organizing principle of economic sociology’ (Krippner, 2001). Subsequently, the role of culture in shaping network relations has been recognised by an extensive literature on ‘cultural embeddedness’ (see, e.g. Biggart and Beamish, 2003; Biggart and Guillen, 1999; DiMaggio, 1994). Culture, like social ties more generally, tends to be regarded as an explanation external to agents’ calculative activities. Chan (2009) seeks to rectify this position, via an ethnography of life insurance sales in China showing how culture can be ‘manifests both as cultural rules that define common prescribed, and organise interactions... *and* as repertoires that provide symbols and practical skills for individual actors’ (Chan, 2009, p. 744).

Our understanding of social ties and their mechanisms has been stretched by the ‘new, new’ (McFall and Ossandon, 2014) economic sociology – to which this paper contributes. It shown that economic actors are embedded in networks comprising technical devices and economic theory – whether mainstream or heterodox – as well as social ties. In fact, such scholarship seeks to contest the hegemony of ‘the social’ (Latour, 2007) in explaining economic action. Socio-material networks share calculation and make economic action a possibility through processes of framing and purification (Callon and Muniesa, 2005; Muniesa, Millo, & Callon, 2007), where the rational, calculative economic agent is the result of complex sociological configuration (e.g. in the context of financial markets, Hardie and MacKenzie, 2007). The anthropological perspective brings us to a similar pass. For example, Slater (2002) offers a theoretical insight chiming with that of Chan: market exchange is characterised by transactions where actors’ ‘entanglements become the objects of instrumental rationality’ (Slater, 2002, p. 52). In both Slater and Chan’s analyses, the purpose of such

entanglements is ultimately instrumental and they are alienated and settled through an eventual sale. For Callon, Slater and others, the distinguishing feature of market exchange is the eventual attainment of ‘quits’. Crucially, in each explanation, cultural, theoretical or material resources are invoked in purging the economic of its social content, once the social has given the economic its distinctive form: the traffic from social to economic is one way.

Callon’s account of purification and disembeddedness is convincing in a financial world comprising increasingly material forms of calculation. We suggest, however, that such material calculation is predicated upon and reproduces a particular conception of arm’s-length social relations predicated on Western conceptions – and legal articulations – of such things as property (Ailon, 2015). The challenge for research, therefore, is not only to describe diversity in forms of calculation and the different ‘cultural’ devices which produce such variety of action (Entwistle and Slater, 2014; Slater, 2002), but also to recognize that social relations may themselves be constituted by economic relations, and that culture is locally produced and embedded in specific institutional arrangements, devices and language. An analysis of the mutually generative forms of economic and social relations in a specific setting – here private investing within a niche group in Taiwan – may help sensitise us to those processes at work elsewhere, on Wall Street, or even in the political economy of high-frequency trading algorithms (see here, for example, MacKenzie, 2017).

In this paper we pick out such a path, using Zelizer’s (1994, 2005, 2012) conceptualization of social relations and economic action in order to understand the recursive and mutually generative relationship between economic agency and cultural practices. Zelizer is best known for her sociological theory of money (Zelizer, 1994) which has provoked much debate in *Economy and Society* and elsewhere (Ingham, 2001). Yet she also focuses on the social content of economic relations more generally, and on the ‘creative effort people make establishing, maintaining, negotiating, transforming, and terminating interpersonal relations’ through economic activity (Zelizer, 2012, p. 149). She argues that the processes of categorisation, or ‘earmarking’, undertaken during economic activity are themselves constitutive of particular social relations, which soon become institutionalized as cultural forms. So, for example, US farming families in the early 20th century made a distinction between a husband’s wheat and corn money, and a wife’s egg and butter money (pin money), distinctions that have persisted into the contemporary labour market (Zelizer, 1994). Zelizer notes, citing Zalom’s (2006) study of professional traders, that stock-trading (like casino

gambling) is only possible when the ‘persistent personal markers’ (Zelizer, 2012, p. 157) of money have been removed. Developing Zelizer’s position, Lainer-Vos (2013) suggests that actors use clarification practices to separate gift and market exchange, categories that often overlap. In some instances, however, they use blurring practices to avoid these kind of distinctions, creating a zone of indeterminacy, ‘an institutional context within which actors can engage each other without sharing a consensus regarding the meaning of the object that changes hands and the rights and obligations that follow from the exchange’ (Lainer-Vos, 2013, p. 146). The capacity of economic relations to generate high-level social structures is, of course, the founding insight of critical sociology, but our interest remains (following Latour 2007) at the micro level. The recognition that social mores and habits are determinants of micro-level economic activity and vice versa (Steiner, 2012) may, therefore, have much to offer a sociological analysis of non-professional investment, and financial market activity more generally.

### **Non-professional investing in the West and Taiwan**

A growing sociological literature has investigated non-professional investors, particularly in the Anglo-Saxon context. It contrasts to the individualistic perspective of behavioural economics (Barber and Odean, 2000), which offers explanations of investor activity focused on, for example, overconfidence and the unwillingness to realize losses (Odean, 1998), mental accounting and the failure of investors to learn from their poor performance (Barberis and Huang, 2001). Harrington’s qualitative study of investment clubs in the USA sees non-professional investors as embedded in webs of social relations, tradition, established ways of doing and social identity. She understands these clubs in terms of narratives, noting that ‘when individuals buy a stock...they are also buying a story. And in buying the story of the company, they are buying a story about themselves’ (Harrington, 2008, p. 48). The values of consumer culture permeate these clubs, and investment decisions are taken not only for economic reasons but also on the basis of brand esteem, consumer prejudice, group solidarity or simply for the sake of doing something over nothing. Harrington locates the boom in investment clubs in a broader picture of declining financial security and absence of collective retirement plans and a new vision of American democracy. Similarly, Roscoe (2015) sees investors in the UK as caught up in neo-liberal notions of self-entrepreneurship and financial responsibility constructed by investment service firms as docile and productive consumers.

Other studies of non-professional investors have shown an isolated and lonely occupation. Preda (2009) records the face-to-screen ‘brief encounters’ of individual non-professional investors as they chat through their trades against the invisible others, just as traders watched by Zaloom (2006) took on an imaginary market villain named the ‘spoofer’. Roscoe (2013) examines the virtual ‘embeddedness’ of non-professional investors, and shows that online interactions and relationships are often more important to individuals than the spectacle of real-world investment performances. Studies of the calculative practices of nonprofessional investors, for example the ‘chartists’ examined by Mayall (2007, 2008) and Roscoe and Howorth (2009) also show idiosyncratic modes of investment entangled with material devices rather than embedded in networks of social relations. Investors find themselves united by shared discursive resources in terms of understanding the market (Ailon, 2015) and by a common hostility to established, professional finance (Hansen, 2015).

While the discourses and practices of the Anglo-Saxon investing world display a remarkable homogeneity, even across different continents, the Taiwanese context is distinctive. The 1980s and 1990s were periods of rapid economic expansion and social change in Taiwan. Free-market reform and industrialization of an agrarian economy led to an idiosyncratic mix of industrialized consumption patterns and traditional economic structures (Besley and Levenson, 1996). Indeed, Besley and Levenson (1996, p. 40) could report ‘a widespread view that Taiwan has achieved remarkable economic growth despite an underdeveloped formal financial sector.’ GDP per capita grew from US\$ 2,389 in 1980 to US\$ 14,941 in 2000 (National Statistics, Taiwan), while policies of liberalization, privatization, deregulation and internationalization encouraged the rapid growth of securities industry and individual brokerage accounts increased from 362,271 to 12,359,893 (Taiwan Stock Exchange).

In the Chinese literature, Kao and Wu (2002) attribute the rapid growth in the number of *sanhu* (non-professional investors) in Taiwan’s stock market during the period to the simultaneous transformation of Taiwanese economic and demographic structures. They classify Taiwanese *sanhu* into six categories: in the financial industry, in listed companies, *guyoushe sanhu* (a now unpopular form of association involving closed, subscription-based information networks), in brokerage offices, quasi-family investing and relationships based on screen (online *sanhu*, resembling their counterparts in the UK and Australia). Our study

concerns the latter two categories. Wu (2005) examines the hierarchical structure of the Taiwan stock market's informational dissemination. He argues that *sanhu* occupy the lowest level of the structure, distant from information sources and lacking capability to interpret information. As a consequence, *sanhu* usually are the inferior players in the market, compared to professional practitioners (such as fund managers), or *dahu*. Wu's findings are paralleled by the English-language literature on Taiwan. During in the bull market of the mid-2000s the Taiwan Stock Exchange was one of the leading 'emerging markets'; in 2006 it could be ranked fifteenth in the world by trading volumes (Chang, Hsieh, & Lai, 2009). Yet it remained small enough for prices to be moved by inflows of foreign capital, presenting opportunities for informed traders. Foreign institutional investors benefited most from such movements while domestic individual investors tended to lose out (Barber, et al., 2007).

Taiwanese investing practices take place within a distinct cultural context. Chinese economic relations are distinguished by a reliance on *guanxi*, a culturally specific form of social relation, a novel feudal phenomenon that developed following the cultural Revolution (Hertz, 1998, p. 108). Chan (2009, pp. 722-724) provides a detailed review of the role of *guanxi* in Chinese business. These social ties, which Chan finds operating most effectively among social relationships of medium strength, have survived economic reforms on account of the significant meanings bound up in them. Developing a framework of tie-strength around the notion of Chinese social relations as patterned in a 'differential mode of association', Chan distinguishes between ascribed (kinship) relations, acquired relations based on shared experience, and business relations caused exclusively for commercial purposes. Importantly, 'close ties in Chinese societies operate according to the principle of need, whereas the principle of equity applies only to distant and impersonal ties'. In other words, Chinese social relations are distinguished by principle of asymmetric obligation operating within stronger ties and a necessarily strong symbolic dimension associated with interactions within these ties. Among weaker ties, Chan observed would-be vendors dramatising family style relationships, such as a daughter-in-law, or a naive sister, generating 'fictive kin ties' (Chan, 2009, p. 739) in order to facilitate sales. Hertz (1998, p. 111) links *guanxi* with the expression and negotiation of face (*mianzi*): 'the ability to obtain or grant desirables through one social network is a measure of one's social status, and hence one's face.' Hertz's (1998) ethnography of the nearby Shanghai stock exchange suggests that non-professional investors represented an important constituency of the market and describes how they cluster together, forming social groups or taking part in associations to exchange market information; they



crowd into brokerage offices to trade stock and prefer political to fundamental and technical analysis. A decade later, Ko-Kang Chien (2008) explores the developments of financial media and production of investment knowledge in Taiwan's stock market. He suggests that non-professional investors' understanding of the market is framed by the media. Taiwanese investing is, like the whole economy, in flux. Our own data show brokerage offices to be in decline, visited by shrinking numbers of older investors. In the context of the Taiwanese stock-market, research has also shown that participation in the stock market increases alongside household wealth and education and that stock-market participation is determined by family wealth, education level and financial literacy (Hsiao, Chen, & Liao, 2014; Lee, 2012).

Our account of Taiwanese investors clearly identifies the role of specific, culturally embedded relationships in structuring transactions. It shows carefully maintained personal boundaries, and individual, even secretive action. Calculative aids such as news channels, stock tips, charts and websites are certainly present in the interview accounts, but investors' transactions are embedded in the minutiae of cultural exchange: family ties and customs, and information passed through social exchanges. We also show how economic relations give rise to and reproduce social structures. Our analysis shows a complex of practices where, in the words of Wherry (2014, p. 422), 'the intertwining of markets and social life results in fundamentally transformed contractual exchanges'.

## Methodology

Existing qualitative research on non-professional investors has accessed individuals through intermediary organizations or engaged with them at events such as exhibitions. Neither method was suitable for Taiwan: there is no equivalent membership organisation for investors, nor are there any investment shows, and there are legal restrictions on the sharing of contact information. The first author, a native speaker, sought volunteers for interviews via social connections and then, in order to access a wider range of interviewees, by snowball-sampling method. As a result our sample may not be generalizable to the entire population of lay investors in Taiwan's stock market, especially as investing is such a universally popular activity in Taiwan; we present a detailed account of one segment of the investing population – well educated, affluent (with portfolios ranging from \$1000, these smaller amounts donated

by parents, to \$400,000) and white collar. Our label of 'affluent' is partly emergent from the data: interviewees considered the ability to participate in Taiwan's highly inflated property market as the definition of 'wealth', and many saw investing as a pathway to that wealth.

A total of 38 interviews were conducted, of which twenty-nine respondents were Taiwanese non-professional investors, and nine were professionals in Taiwan's stock market. The first author conducted the interviews in Taiwan. Thirty-seven interviews were conducted in person and the exception was conducted by Windows Live Messenger. All interviews were recorded and transcribed. Interviews lasted between 20 minutes to two hours. Table I gives details of interviewees. Interviews were conducted in neutral locations. The investing and surrounding activities discussed in the interviews took place in the home, in classrooms, in scattered locations and on an ongoing, irregular timescale. Interviews were therefore an appropriate means of allowing participants to discuss and present their own detailed accounts and understandings of their investing practices and meanings (Easterby-Smith, 2002). While the snowballing method does have limitations in terms of sample and representativeness, it does offer considerable advantages in the Taiwanese cultural context. Topics raised during interviews (such as personal saving, investment gains and losses) are usually thought 'sensitive' questions and are unlikely to be answered if posed by a stranger. Considerable trust is required if interviewees are prepared to discuss matters implying potential loss of face. The word of mouth method made use of existing social connections. It is unlikely that interviewees would have talked openly to complete strangers, but social connections gave rise to more honest and open answers. Pseudonyms have been used throughout to preserve anonymity.

Data were analysed thematically (Miles and Huberman, 1994) by hand and grouped around emerging themes and themes identified from the literature. Interview material presented in this paper relates to the 29 interviews with non-professional investors. Observational data were also collected in four brokerage offices in Taiwan (three in Taipei and one in Tainan). Although these data are of less relevance to the present paper they were used for triangulation (Webb, Campbell, Schwartz, & Sechrest, 1965). The interview data from professional practitioners (not listed in table I), were also used as a resource for triangulation: the first author was able to discuss the trading practices and habits of non-professional investors with the brokers and to observe the investors trading and socialising in the office. Social relations within the office could be observed in practice and closely mirrored the status-reinforcing

trading practices described in interviews. For example, one highly profitable trader known as ‘*Shifu*’ (Master) spurned the offer of a VIP room to sit in the brokerage lobby, speaking loudly, his trades imitated by lesser-status investors. Chatter within the brokerage room reflected that beyond it: a mixture of investing news and gossip and family life entwined in the conversations. The voices of professionals are backgrounded in this paper because of their distinct occupational context, apparently little different to that of their Western counterparts as described, for example, by Hardie and MacKenzie (2007). A detailed study of Taiwanese professional finance falls beyond the remit of this paper.

## Non-professional investing in Taiwan

The following sections present our empirical study. We examine investing as a practice through which household and family relations are ordered, and capitals (Bourdieu, 1984) accessed and reproduced. We follow Slater (2002) in distinguishing between calculation and transaction; while the investors are embedded in material calculative agencements comprising stock charts, for example, we show that moments of transaction give rise to distinctive social relations. These relations hybridise the relatively new phenomenon of stock investing with existing patterns of gift and exchange embedded in family and friendship relationships. Our empirical question concerns itself as much with the social relations generated by economic activity, as economic activity driven by social relations: the final section of the article shows investing as constitutive of exclusive social relations which confer substantial advantages upon those within the networks.

### *Investing, a family affair*

Our data show that much investing activities located in household and family. Investing offers a means for the intergenerational transmission (and translation) of status and capitals (Bourdieu, 1984) within families, who provide economic and intellectual capital for their children to learn trading, seen as a source of social capital. The economic capital comes in the shape of cash and unused brokerage accounts, while intellectual capital is transmitted through discussion, help and ‘moral support’. Earmarking sums of money for training makes losses

acceptable, not by removing personal markers (c.f. Zelizer, 2012), but by marking the money specifically for the purpose of loss.

Interviews show how trading forms the basis for conversations between parents and siblings, both as a family entertainment and a parental lesson. Stock trading is seen as an essential skill of economic life, part of the education that must be passed to children, and a productive pastime that crosses gender and generation in the household. For example, Ms Wu (F, 20s, student) began stock trading when she first earned money from a part-time job. 'My parents gave me moral support,' she says. 'They set an example... Their friends are trading stock as well'. Ms Wu summed up her received ideas on the economic and social importance of trading when she remarked: 'no matter early or late, stock trading is necessary to learn in everyone's life...to do 'investment', you have to learn trading first.' As with Harrington's (2008) analysis of American investment clubs, the popularity of non-professional investment reflects broader social changes and understandings of economic participation in an increasingly market-driven Taiwan.

Eleven of the twelve interviewees who are under 35 years old have 'investor parents'. Cong-Ying (M, 20s, student) began trading in college. He describes – using a vocabulary of play and experiment – the influence of his family:

It happened naturally, because my family are 'playing'. Father and mother are 'playing'. Besides, my junior brother is studying finance in his postgraduate degree. It became that three people at home are 'touching' stock. It would be weird ... if I had not 'touched' it. Being influenced gradually, I decided to 'play' stock with them.

For many, the first glimpse of trading comes from observing parents. During his junior and high school period, Mr Liu (M, 20s, student) watched his father browsing the stock-trading websites, and often discussed trading with his father. 'It looked very interesting,' Mr Liu says, 'so I got involved in it.' He joined internet forums about stock trading, bought stock-investing magazines, and watched stock analysis programmes on television. 'Through these channels, I partially understood some probably right or wrong theories about stock trading,' he says. Mr Liu is enmeshed here in calculative apparatus familiar to non-professional investors worldwide. His investing, however, is accompanied by transactions that merge family relations and economic exchange through a deliberate indeterminacy of language: when he entered college, his father accompanied him to a brokerage office to open an account into which he deposited NT\$50,000 (£1,000). Mr Liu's father told him that the money was

lent to him solely for trading stock. After a period of time, Mr Liu felt the money was not enough and asked his father to 'lend' him another \$50,000. Mr Liu remarked that it seemed very 'natural' to ask his father to provide him the trading capital after many years of talking about trading. Here, a small sum of money is earmarked as trading capital, at risk of loss. In the first instance Mr Liu's father gifts money with certain obligations and moral requirements, and Mr Liu, having delivered on those obligations can naturally ask for a further 'loan'. The description of the money as a loan helps to blur the distinction between gift and business transaction, creating 'a zone of indeterminacy' (Lainer-Vos, 2013) where father and son can manage the conflicting responsibility and obligations incurred by the transaction. Mr Liu is neither bound by gift-based reciprocal obligations nor a strict contractual exchange; he is, however, able to employ the discourse of economic exchange to ask for further funds for his investing.

Yi-Hong (M, 20s, student) is another investor who has been introduced to trading by his family. His mother is a stay-at-home investor who watches real-time stock market information on television at home every weekday. His father and grandfather are investors. He remembers stock charts piled always on the top of his grandfather's desk when he was a child; his grandfather had been a big player at that time, but lost almost all his money in a crash. After that, his grandfather has rarely touched stock. At the end of his first year of college, Yi-Hong wanted to start trading. However, he did not have any capital and hesitated to tell his parents about his intentions, perhaps on account of his grandfather's huge loss. For three months he practiced trading on paper, sharpening his 'sense' of the market. Only then did he casually ask, 'Do you think it's a good time to do some stock trading?' His parents' attitudes were unexpectedly positive. Yi-Hong's parents gave him a dormant brokerage account belonging to his father; the account still had around NT\$30,000 (around US\$1,000), which Yi-Hong used as his original capital for stock trading. Again, an investor armed with material calculative apparatus in the form of a trading game (c.f. Roscoe, 2015) enters into transactions through which family-based relational work takes place. In a similar way, Zhi-Chun (F, 30s, employed) started to trade stock when she began to work as a cabin crew member. Her mother suggested that Zhi-Chun take up stock trading, so that her down-time should not be wasted: stock trading would be a productive use of her leisure. Zhi-Chun's mother and her husband gave their daughter NT\$100,000 (around £2,000) as the starting capital, giving her not only a moral imperative but also economic support.

The introduction of these second or third generation investors to trading contrasts with that of older investors who were introduced to the market by friends and at brokerage houses; as recently as the mid-1990s, brokerage houses remained central to non-professional investing (Hertz, 1998). Mrs Kuo (F, 60s, home-maker) first visited a brokerage office, many of which were located on Huai-Ming Street, near Taipei railway station, in 1974. She still visits her brokerage, as does Sheng-Ji (M, 60s, retired) who goes daily and has a seat in the VIP area. Shu-Ling (F, 40s, out of work/homemaker) and her mother learned how to trade in the brokerage office but no longer go there. Mrs Zeng (F, 60s, retired) recalls how her neighbour introduced her to the stock market and taught her the basic idea of charting, recording daily closing prices:

She asked me to draw the lines. She said, ‘You studied in high school and I only graduated from elementary school. You have to draw it.’ At that time, temperature-recording sheets with small grids were often available in hospitals. I took temperature-recording sheets to record share prices ... Actually, I did not understand much. I only drew one type of chart. Drawing, drawing, drawing. When the prices reached a very high point, I would sell it quickly. That was all.

Here hierarchical relations between market actors are maintained. Mrs Zheng, persuaded by her friend participates in the market, is now signed a position of pupil, the dependent lower status act. This reinforces the asymmetric obligation that characterises *guanxi* and forms a channel for the enhancement of the neighbour’s face.

Interview data show that younger investors now receive information, share tips and skills through social media and online messenger services. While conducting observations of brokerages, the first author often felt conspicuous on account of his relative youth; investors peered at him and on two occasions questioned his presence directly. As investing in Taiwan has become normalized it has moved from the public to the private sphere, and the shared space of the brokerage is declining, as Mrs Kuo describes:

Twenty years ago all the brokerage houses were full. Many had to stand...some people, because there were not enough chairs there, brought their own chairs...In the past there were many people in our place, crowded with people. Now all are gone.

The older generation remain sceptical of new investing methods. Mr. Yang’s son relied on the Internet to trade stock, but Mr. Yang told the first author: ‘just because he knows how to use the Internet doesn’t mean he would make money.’ However, both the young and old

generations value market information from their social ties: 25 of 29 interviewees consider personal relations as one of main means to access information.

### *Family politics and secret savings*

Our study shows relational work among investors as strategies of earmarking, blurring, and clarification are used not only to strengthen relationships and deliver parental guidance but also to avoid conflict. Participants in these exchanges emphasise the familial basis of their relationship and seek economic arrangements that support and strengthen those relationships. Investing becomes entangled with other aspects of family politics. This is exemplified by the case of Ou-Yang (F, 30s, employed), whose mother deposited money in Ou-Yang's bank account, and asked her daughter to use this money as capital invest on her behalf. Her mother also implied that, although she provided capital and took the risk of capital loss, any profit could be freely used by her daughter. Ou-Yang had never studied business and finance, and her job was not connected to commerce, but she is the member of the family closest to her mother; this was a covert action of gifting money, obscured by the mother's claim that Ou-Yang was only helping to manage her wealth. This blurring strategy avoided the jealousy of Ou-Yang's sister and any potential tension between the sisters. It provides a zone of indeterminacy around which family relations and economic relations can be worked out; the mother's economic preference towards her favourite daughter can be perceived in multiple ways. At the same time, Ou-Yang's mother clarifies the covert gift as a commercial arrangement to avoid sibling jealousy. It is likely that the sister recognized the strategy – which is presented in the interviews as such – and was also complicit in it as a means of maintaining family relationships.

In another, more complex, instance of entangling and blurring, Mr Zhan (M, 30s, employed) also opened a brokerage account for his mother in his own name. The motivation is very different from the gift and support seen in Ou-Yang's case, instead reinforcing maternal authority. Her brother (Zhan's uncle) had advised the family to buy shares in a company with which he was connected: 'The money was provided by a parent,' says Mr Zhan, 'the parent bought stock through the account registered in Zhan's name.' For Mr Zhan's mother and the other relatives, it seemed an assured opportunity to make a profit (it is possible that this was insider information – the interviewee does not explain the reason explicitly): 'So, everybody

bought the stock.’ The mother, a senior official, did not already have her own stock account and at the time and was ‘too busy’ to handle the ‘triviality’ of this trading. Mr Zhan ‘had to’ be his mother’s ‘agent’, and trade the stock in his own name. After his mother took back the capital and profit, Mr Zhan kept the account open and started his own stock trading. In this case, a zone of indeterminacy serves to separate Mr Zahn’s mother from her ownership of the stock, allowing him to take responsibility (and accountability) for the trade; earmarking funds nominally belonging to Mr Zahn allows his mother to benefit from any upside. Once again it is useful to distinguish between calculation and transaction. While calculation is simply a product of social relations and information, the complex transaction has a more relational character, reproducing and reinforcing the existing power structures of the family, forcing the junior member to shoulder administrative burden as well as some risk, while allowing the mother to benefit from any gains. The relational work here and that discussed in the previous section both serve to reproduce status relationships within the family.

There remains secrecy regarding personal savings. In Taiwan, personal savings which are unknown to other family members are called ‘*sifangqian*’. Traditionally, a Taiwanese family operated as a single economic unit, and each person’s savings were considered to be part of the family’s wealth to be used for the family’s benefit. Many people, therefore, held secret savings of which other family members were unaware. In the past, especially, the husband controlled the family’s economic resources and budget, so the wife would have *sifangqian* for herself. Nowadays, *sifangqian* remains in some form in many Taiwanese families, and both husbands and wives may have *sifangqian*. For some investors, money for trading stock is a part of their *sifangqian*, and so rarely discussed. Ms. Qiu’s (F, 20s, employed) family is an example. All her family members know the others are trading stock, but they do not discuss this issue at home:

My father plays a lot in the stock market ... Indeed, he has never told us when every time he plays ... He has not discussed these kind of questions with me. Probably, he does not want me or my mother to know the cash flow of his money ... Our family members seldom ask each other about the situation of each other’s stock trading... It seems that each family member does not want another family member to know the detail of their *sifangqian*.

Here, economic relations are arranged to allow individuals a measure of autonomy that would not otherwise be possible in a collective economic unit. Similarly, Ms Wu’s (F, 20s, student) parents, despite providing economic capital and moral support, no longer discuss stock



trading at home – apparently unwilling to reveal any details of their own stock market activities.

In summary, despite the willingness to pass on economic capital and social capital (Bourdieu, 1984) in the form of encouragement, strict boundaries remain, and family structures of various kinds are reproduced by individual economic arrangements. Stock trading becomes part of the relational work (Zelizer, 2012) of the household: reproducing relations of power, showing favouritism, and maintaining privacy. In some instances, profits are earmarked as belonging to either the owner of the capital or the trader. The separation of trading accounts as *sifangqian*, however, lessens the need to earmark trading monies as belonging to an individual.

### ***Investing and status***

Anglo-Saxon investors invoke certain stories as reasons for becoming involved in the market. These stories are often hostile to institutional finance and promote an entrepreneurial discourse of economic self-reliance (Harrington, 2008; Roscoe, 2015). In Taiwan, investing is seen as a means for those unable to afford a property in Taiwan's inflated property market to raise capital to purchase a house, to increase income or to prepare for retirement. A definition of wealth as demarcated by property ownership emerges from the interviews. Property investment is considered a means for the rich to increase their wealth and to maintain their status, impossible for those without capital. Mr Yan (M, 30s, employed) claims that 'success' in a person's life is determined by their property holdings. His goal is to engage in property investment and stock trading is regarded as an 'interim business': 'Before I enter the property market,' he says, 'stock trading is an instrument to extend my capital.' Mr Yan suggests that such ambitions underlie the popularity of trading in Taiwan: he believes the average income of Taiwanese 'salarymen' (white-collar workers) is too low and many of them are looking for an alternative way to accumulate wealth. Again, there are clear parallels between Taiwanese narratives and those of American investors, who stress the necessity of investing in the absence of alternatives: 'Where else are we going to put our money? In the mattress?' (Harrington, 2008:149).

Earmarking of monies as capital-at-risk is supported by a tendency to regard losses as an inevitable part of learning to invest. Interviewees suggested that that ‘experience comes from bad decisions’ and considered the losses as the fees investors must pay the market during the learning process: Mrs. Kuo, for example, uses the phrase ‘to buy experience’ when talking about her losses. Moreover, as Harrington notes, profit and loss are themselves socially constructed to a surprising degree; we suggest that losses may be considered as expenditure (i.e. not losses) if they are accounted for a particular way, whether passing social and intellectual capital to children or maintaining status and market position relative to other actors (Fligstein, 2001).

Many nonprofessional investors were attracted to the practice by success stories told to them by family and friends. As the stock market expanded rapidly in the late 1980s and early 1990s, so stories of individuals amassing enormous wealth abounded. While such fairy-tales lacked the credibility needed to inspire potential traders (Wu 2005), interviewees explained that the *visible* success of relations, neighbours and friends encouraged them to begin trading. Introductions via friends were particularly important for older investors who lacked investor parents or financial mass media. For example, Mrs Kuo’s brother had been led into trading by the story of a successful uncle. Mrs Kuo (F, 60s, homemaker) recalls that he planned to imitate one of their uncles, who had earned a lot of money by trading stock, and had made enough money to buy a property in central Taipei, an unusual but impressive story that took place before the stock market explosion of the 1980s. Ms Zeng (F, 60s, retired), a retired civil servant, began stock trading 26 years ago encouraged by a neighbour who portrayed herself as a successful example of the stock trader. One day, this neighbour said to her, ‘You are too poor, so you have to do stock trading.’ At that time, her neighbour had purchased two houses with money made on the stock market. ‘I told her that I don’t know how to buy stock,’ Ms Zeng says, ‘I didn’t know that it could make a profit.’ Following her neighbour’s suggestion, Ms Zeng mortgaged the house she already owned and used the money to trade stock.

Once again, investing becomes the medium for relational work (Zelizer, 2012) as hierarchical relations – between family and friends, often exclusive and antagonistic – are reproduced through economic relations. Here the relational work takes the form of performances of expertise and success. As Chan (2009) shows, weaker-tie relationships provide actors with an opportunity for a fictitious, dramaturgical presentation, in this case of stock market success. In the case of Ms Zeng, a neighbour introduces the newcomer to the market and teaches her

the rudiments of trading, thereby enhancing her own dominant status and expertise; Mr Yang and the brother of Ms Kuo both take up the occupation to move through otherwise closed status boundaries, here exemplified by the purchase of investment property.

In another example, stock trading served as a gateway to peer and status groups. Mr Yan (M, 30s, employed) began stock trading when he was 22 years old, in the year he entered postgraduate education at a top research institute for electrical and communication engineering in Taiwan. Most of Mr Yan's classmates and seniors had gained their undergraduate degree from this school. According to Mr Yan, his 'pure-blood' classmates, who had studied as both undergraduates and postgraduates in this school, thought themselves to be excellent in everything, including stock trading. They also had professional knowledge of IT and electrical manufacture, which could be used to analyse the IT and electrical industries' market cycles. Trading stock was a part of the school culture. 'All in the postgraduate school were investing', Mr Yan says, 'All in the postgraduate school and in my office were buying stock.' Mr Yan was one of a few students who had graduated from less prestigious universities, and was initially excluded from the group. In this case, trading becomes a means for Mr Yan to gain entrance to a high-status group from which he was excluded. Trading profits translated into prestige and status. There are similarities with some of the all-male investment clubs studied by Harrington (2008) where professional expertise of certain industries and discourses of masculinity have great importance in trading discussions. In fact, Yan suffered early losses in his trading and was unable to admit them for worry of loss of face and exclusion; maintaining his position in the community required him to become a successful trader.

### *Antagonistic social relations of investing*

Sociological perspectives on economic activity tend to emphasise the positive nature of networks in terms of information sharing, trust and reliability (Granovetter, 1973; Uzzi, 1996). Chan (2009) shows actors involved in a more instrumental use of social relations. Our study provides further examples of the potentially exclusive and antagonistic nature of social networks. Those outside of networks are greatly disadvantaged as family and friendship ties gave investors access to one particularly important kind of information: *xiaoxi*. The term, which literally translates as 'information', usually refers to the latest, or unpublished,

unreleased, or unconfirmed information (sometimes simply rumours) of listed companies' operations, industries, markets, government policies and share-price-manipulation. Mr Yan gives an example of the circulation of *xiaoxi* in Taiwan's stock market:

'In 07, I knew Shan-Zhu. While I was in graduate school, my trading had not been successful...Shan-Zhu said he would help me. At that time, his girlfriend and the people around him all said 'his investment trading strategy is not an easy way to make money', so they had reservations. However, in that time, the items which he recommended ... He seemed to be able to freeze water by words. What he said would be that true. Immediately, my money increased from more than NT\$ 5 million around £100,000 to more than NT\$ 9 million £181,000. At best, it was over NT\$ 11 million...BOOM! BOOM! BOOM! Increased by one million in a month! Really incredible!'

The relationship between Shan-Zhu captures elements of the *guanxi* described by Chan (2009): an asymmetric obligation based on friendship through which Mr Yan gains face as he is trading in successful. Another friendship-based relation with a clearly asymmetric obligation is described in the following example. In September 1988, Financial Minister Kuo, Wan-Rong announced that the government would restore capital gains tax for securities trading in the following year. After the announcement, share prices in Taiwan's stock market fell continuously for 19 days and thousands of investors demonstrated against this new ruling. Hours before the announcement, however, Mrs Kuo received a call:

A *daka*, an important person, told me, 'run out and sell half of the shares first. Something's already happened.' I thought can any important incident happen?...I said 'ok, ok, ok,' on the phone. I immediately went to sell shares at that time.

Through the provision of inside information, economic status and capital can be enhanced, as in Mr Yan's early and short-lived success, or preserved, as in Mrs Kuo's case. At the same time social relations are reproduced – Mrs Kuo's dependence on her '*daka*' or Mr Yan's on Shan-Zhu – through economic activity. Yet exclusion may not always be disadvantageous. *Neixian* is always uncertain. Even information from a long-term reliable informant can be wrong sometimes. For Mr Yan, whose story ended in heavy losses, one accurate *neixian* became seriously misleading. Both Mrs Kuo and Ms Zeng stated that some of their friends were 'tripped up' in the market due to inaccurate *neixian*. Other interviewees have heard a similar story, with the common theme that 'the informant only calls the follower to hop on the bus, but the informant never reminds the follower when to hop off the bus.'

## Discussion

This paper has offered an account of the practices and meanings of investing among a group of Taiwanese non-professional investors. The role of both social relations and culture in structuring economic transactions has been thoroughly demonstrated in the literature of economic sociology. There has been a tendency, however, to regard such relationships as external and explanatory; Chan (2009) has sought to reinvigorate our understanding of social ties by showing how actors creatively shape and reproduce such ties in the pursuit of economic transactions. Our analysis explores how economic transactions, and calculation broadly understood, give rise to social relationships. We use Zelizer (2014) to argue that the activity of investing is constitutive of social relations: individuals use economic relations – in this case trading, money and related activities to organize, produce and maintain structures of friendship and family. Investing and the transactions that surround it (such as the gifting of capital for training purposes, or the visible demonstration of investment success for the purpose of maintaining social superiority) allow actors to reproduce patterns of social status and maintain access to social groups. Economic sociology has long recognised that market actors expend much effort on the preservation of status relative to others (Fligstein, 2001). Following Chan (2009) we see that asymmetric obligation underlies many of these relationships, and that transactions reproduce a distinctive form of social relation. Table 2 classifies example transactions by the relational work involved: earmarking, blurring, controlling network access, controlling information flow, and performances of expertise and success. Kinship relations span family and friends only.

Please see table ii below

Zelizer argues that ‘earmarking’, classificatory strategies are central to building social relations. Our study shows these earmarking processes at work. First of all, stock-trading – and therefore money, time and activities associated with it – is earmarked as communal, collective and domestic, and therefore embedded in that sphere. It is *quanmin yundong*, a movement for all people (Mrs Hong). It is described as a game, and as playful. Parents earmark small, though not insignificant, sums of money in trading accounts, explicitly to help their children gain experience of trading in the markets. Earmarking identifies the money as

being losable, part of the costs of education, and classifies any winnings as a reward for hard study. Alternatively, *sifangqian*, or secret savings, are a means of earmarking money away from collective family arrangements. Earmarking processes are at work so that money raised from a mortgage or repurposed from savings for a deposit on a flat can be moved into the market despite the clear risks involved. Asymmetric obligations are present, and hierarchical relations between parents and children are maintained, while educational and cultural capital (Bourdieu, 1984; Fligstein, 2001) is consolidated within the younger generation.

We also found individuals using ‘blurring’ strategies (Lainer-Vos, 2013) to negotiate transactions that are simultaneously economic exchange and gifts. Stock trading is embedded within the social relations of friendship and family but is at the same time an explicitly economic transaction. Relational work around trading depends upon blurring of certain categories. For a start, the language of investing does not make clear whether it is a business or a game: it is both trade, and gossip. Trading resists an entirely economic purification and framing (Callon, 1998) but entangles friendship and economic activity: consider A-Zhen (F, 50s, self-employed) who takes her savings and begins to trade so that she can keep her friends company, although eventually all of the women suffer heavy losses. In instances where trading capital is gifted to children blurring strategies are essential in avoiding obligations inherent in both economic and gift exchange. Ou-Yang’s example – ‘looking after’ funds deposited by her mother in an account bearing Ou-Yang’s name – blurs the distinction between a gift and economic stewardship; in opening an account for his mother to trade on inside information Mr Zahn opens himself to loss or harm. Questions of equity and reciprocity associated with gift exchange or the alienation and obligation associated with economic transaction (Slater, 2002) present potential difficulties within families. Blurring the precise nature of transaction allows families to navigate these issues, although it is an artful settlement. Interview narratives suggested that willing complicity is required on all sides.

The ‘new, new economic sociology’, following Callon (1998), suggests that economic activity becomes possible through a process of framing and disentangling, and directs attention to calculative agencements and the devices which support individual decision. Calculative devices of the kind detailed in existing work on nonprofessional investors feature in the background of these investors’ narratives. Yi-Hong remembers the charts piled up on his grandfather's desk, while Mr Liu joined trading forums and practiced his skills online. Calculation is tied up in the changing world of Chinese economic relations, caught between

traditional social relationships and contemporary electronic information channels: the latter, for example, are contested by the older generation who still prefer to visit brokerage houses. *Guanxi* remain imminent in the calculation of these investors. Local, specific projects and norms are seen to be an important part of the formatting of particular economic agencies: so, for example, investing patterns are shaped by local traditions of secret saving, a local tradition, while the notion that investing may in due course lead to property ownership is constituted by the specific situation of the Taiwanese mid-income families in an inflationary property market.

It is well recognized that social relations shape economic activity, but our study shows a mutually constitutive pattern of constitution. In our account, transactions (Slater, 2002) performed specific social relationships. Trading activity is connected with economic status and access to privileged groups. Our study also shows, for example, how higher status actors work to preserve their position in the field relative to others. Trading knowledge may form a source of interpersonal authority, when one student assists another, or a neighbour persuades another to emulate her success in the marketplace. *Neixian*, unnamed and unreliable inside information, is implicated in the exploitation of non-professional investors in share corners and manipulations. In the case of Mrs Kuo's timely avoidance of an infamous stock market crisis, the existence of well-placed friends confers substantial advantages over those less fortunate. Mr Yan became a trader to gain access to an elite group at his university; a Mr Yan is unwilling to admit losses because trading skill is perceived to be a marker of more general intellectual or personal ability. Mr Yan and Mrs Kuo both benefit from information flowing through network gatekeepers. In each case hierarchical relations between peers are reproduced and further dependencies are introduced. Performances of expertise and status form another way of maintaining hierarchical relations as successful individuals persuade their friends and neighbours to take up stock investing; once again, the new investor is obligated for information and often this obligation is backed by risk in the form of debt taken on to fund investment.

Callon's account of the purification of economic transaction does leave the door ajar in terms of social relations and their contribution to economic agency. He offers an 'anthropology of entanglement' (Callon, 1998, p. 40), reading Zelizer to say 'earmarking denotes all the practices through which agents particularise these inscriptions, by fixing trajectories, assigning movements, and simultaneously embedding money in a specific space of

circulation...she shows without difficulty that advanced societies proliferate earmarking and differentiation.’ (Callon, 1998, p. 35). It is this proliferation and earmarking that make calculation possible through the mobilisation of entities. It leads also to the overflowing and reframing that characterises economic life. In other words, money can only perform its function if it acquires temporary specificity and fixity through networks of relations, be they social or material. Those following Callon have shown how social relationships stabilise calculation among professional actors, in the trading room (Beunza and Stark, 2004), the hedge fund (Hardie and MacKenzie, 2007), the material political economy of algorithmic trading (MacKenzie, 2017), or the sale of bank products (Vargha, 2011), to offer but a few examples.

We read Zelizer to argue that the traffic is reciprocal. Moments of transaction stabilise and reproduce social relationships: relations of status, esteem, or face. Of course, projected on a grander screen, this is the founding insight of critical sociology, and although our concern is less with structural regimes of domination and more with micro-level accounts of power, in in families, among friends, and within organisations, we make a small contribution towards the ongoing project of politicising market studies (Christophers, 2014; Giamporcaro and Gond, 2016). It is well recognised that social ties mediate trading relations among professionals, even machines: we encourage researchers to consider the counter-traffic. What do economic transactions do to social relations, in terms of producing dominance or constructing new networks, for example? Shrewd readers will have noticed that the warm sociality of our traders belies a personal alienation – mortgages defaulted, friendships strained, savings lost. What are the personal, even the moral consequences, of economic relations spilling into personal lives (Roscoe, 2014)?

We suggest that Taiwanese non-professional investors provide a counterfactual to a preoccupation in sociological studies of financial markets with what happens ‘on Wall Street’ and to understandings of investment shaped by long-standing conceptions of equity participation and entrepreneurship (Harrington, 2008). While limited in empirical scope to one niche sector – non-professional investors, affluent, white-collar, Taiwanese –our study can serve to sensitise future research to the relational work inherent in financial trading elsewhere, and to de-naturalise conceptions of arm's-length relation embedded (and therefore performed by) in much financial market activity. Our contention is that *all* finance has a relational element. The relevance of our study to high finance therefore becomes an empirical



question to be answered in other contexts: what, for example, is the relational work of high-speed trading, and what social relations does it reproduce? What is the moral and political economy of the trading algorithm (MacKenzie, 2017)? What social relations are performed by the material structure of an exchange (Castelle, Millo, Beunza, & Lubin, 2016)?

In conclusion, our study contributes to the growing recognition that mundane social relations must be written into the sociology of economic activity (Moor and Lury, 2011) and represent an important area of concern for the study of financial practice. We have considered stock-trading from the perspective of a ‘relational sociology’ and have suggested that stock investing is constitutive of social relations, of ‘establishing, maintaining, negotiating, transforming, and terminating interpersonal relations’ (Zelizer, 2012, p. 149). While we accept the methodological limitations of our paper, we do propose that the high trust interview-based data gives phenomenological insight such questions, and we have attempted to elucidate the personal accounts of the practices and meanings of non-professional traders. By doing so, we hope to stimulate future empirical research on the relational consequences of financial market activity. Scholars such as Ourousoff (2010) and MacKenzie (2017) have shown how material calculation can become a battleground for rival performances of global finance. In the light of the importance and unpredictability of global stock markets, there is likely to be more than a little scope for further investigation: what is the relational work of Wall Street?

### **Acknowledgements**

The authors would like to thank the editor of *Economy and Society* along with the editorial board and two anonymous reviewers. The support and comments of all have greatly improved this paper. An early version of this paper was presented at *Everyday Market Lives*, University of Warwick, United Kingdom, February 2015, where it received much useful feedback. Errors and omissions remain the responsibility of the authors.

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## Tables

**Table 1: Interviewees (non-professional investors only)**

	Gender	Age	Status	Portfolio size (USD)
Ms. Hong	F	50s	family business member	3k
Ms. Lin	F	50s	family business member	3k
Mr. Chen	M	50s	self-employed	33k-50k
Zhi-Chun	F	30s	employed	3k
Ou-Yang	F	30s	employed	3k
Ms. Zeng	F	60s	retired	50k-100k
Ms. Liu	F	50s	employed	16k
Cong-Ying	M	20s	student	6k
A-Liang	M	50s	self-employed	166k-2m
A-Zhen	F	50s	self-employed	50k-150k
Mr. Yang	M	70s	Retired/ brokerage office stayer	66k-100k
Shu-Ling	F	40s	out-of-work/ homemaker	3k-6k
Wuma	F	70s	homemaker	
Ms. Qiu	F	20s	employed	1k
Mr. He	M	30s	employed	16k-33k
Mr. Lin	M	60s	self-employed	n/a
Mr. Liu	M	20s	student	3k
Mr. Zhan	M	30s	employed	3k
Guang	M	20s	employed	1k
Rou-Zhu	F	30s	employed	3k
Yi-Zhi	F	30s	employed	n/a
Ms. Huang	F	60s	out-of-work	66k-100k
Ting-Xuan	F	20s	student (mutual fund investor)	10k
Mr. Yan	M	30s	employed	100k-366k
Sheng-Ji	M	60s	retired/ brokerage office stayer	n/a
Yi-Hong	M	20s	student	10k
Mrs. Kuo	F	60s	homemaker/ brokerage office stayer	233k
Ms. Wu	F	20s	student	3k
Mr. Zhang	M	30s	employed	23k-26k

Table ii: Relational work in investing, example strategies

Transaction	Relational strategy	Economic relation reproduced	Nature of social tie (Chan, 2009)
Setting up and funding brokerage accounts for children (e.g. Mr Liu, Yi-Hong, Zhi-Chun)	Earmarking money at risk for educational purposes	Hierarchical relation between parents and children maintained; cultural/educational capital consolidated in children	Kinship – asymmetric obligation
‘Gifting’ trading capital to siblings (e.g. Ou-Yang, Mr Zhang)	Blurring strategy between gift and loan	Hierarchical relation between parents and children maintained; obligations of gift or loan exchange negotiated	Kinship – asymmetric obligation
Trading as entry to status group; sharing stock tips within status group (e.g. Mr Yan)	Access to network controlled through gatekeepers	Hierarchical status relations between student peers maintained; further dependencies introduced (e.g. Mr Yan’s struggle with losses)	Acquired – asymmetric obligation
Advance warning of stock collapse; sharing inside information (My Yan, Mrs Kuo)	Limited information flow through network gatekeeper	Hierarchical relations between information source and recipient maintained; further dependencies introduced	Acquired – asymmetric obligation
Persuading others to start investing (Mr Kuo, Mrs Zheng)	Performance of expertise and success	Hierarchical relations between persuader and persuaded maintained; further dependencies introduced, e.g. for information, debt	Kinship or acquired – asymmetric obligation

